

ABSTRACT OF THE DISCLOSURE

Data having three values or more is stored in a memory cell in a nonvolatile manner. A data circuit has a plurality of storage circuits. One of the 5 plurality of storage circuits is a latch circuit. Another one of the plurality of storage circuits is a capacitor. The latch circuit and the capacitor function to temporarily store program / read data having two bits or more. Data held by the capacitor is 10 refreshed using the latch circuit if data variation due to leakage causes a program. As a result, the data circuit does not become large in size even if multi-level data is used.